

EDITORIAL

Breast Cancer: A Different Cancer?

BERNARD GARDNER, MD

From the UMDNJ-New Jersey Medical School, Newark, New Jersey

I recall a paper of some years ago presented at the annual meeting of the Society of Surgical Oncology by Ed Scanlon on recurrence of gastroesophageal carcinoma, when the specimen exhibited positive margins. We discussed that paper at the meeting and reported a number of our own cases with similar findings. If the cancer were resected but not all the cancer is removed, recurrence and death from the disease was an inevitable result. In fact, that principle was extended to the treatment of most, if not all, cancers. If you couldn't get it all out, the patient was doomed. We didn't talk as though we were dealing with a special form of gastric cancer in those days and that local failure was merely a sign of a more aggressive cancer.

Negative margins have played a major role in surgical cure of many cancers. We use frozen sections routinely after gastric or esophageal resections to prove that the margins are negative. Scanlon recommended in his paper that total esophagectomy may be the treatment of choice in cancers in which positive margins are a risk. Many head and neck surgeons today still use frozen sections to determine adequacy of resection. Local recurrence is frequently recognized as a measure of an inadequate resection, a technical failure, rather than an intrinsic characteristic of the cancer.

We do not question that some solid cancers have a bad prognostic outlook from the start, but in dealing with them we believe that without obtaining complete removal with negative margins of appropriate distances we doom the patient to inevitable failure. So we strive to develop the means of avoiding spillage of cancer cells, avoiding narrow resections with close margins, using clamps and tapes, changing instruments from biopsy to resection or to reconstruction, and other measures. Why has our thinking changed so radically when it comes to breast cancer?

We see constant references in the literature to the fact that it doesn't matter if local recurrence appears in the breast, since (1) it can be resected without changing the prognosis, or (2) the cancer was probably one with a bad prognosis and was bound to kill the patient anyway,

or (3) radiotherapy or chemotherapy will take care of the problem. We now have enough evidence to warrant taking a closer look at this problem. This is particularly true, as we are using more and more breast-conserving treatment, needle localization, and stereotactic fine-needle and core biopsies, which are resulting in a sacrifice of adequate margins in many cases.

Over the past few years, certain facts have become evident. Ipsilateral breast recurrence with breast conservation treatment is likely in up to 30% of patients and can be reduced to a level of 7–10% with the use of radiation to the breast [1]. Although better results are occasionally reported, these seem to be the prevailing results. These breast recurrences may be related to several factors, but the clearest data imply that they represent recurrence of residual disease left after resection. The best correlation is with the status of the margins and is related not only to positive margins, but also to close margins. One study of re-excision specimens, after initial excision, revealed 23.9% with minimal microscopic cancer, 12% with extensive microscopic cancer and 9.4% with gross residual carcinoma [2]. Another report of 2,657 cases (review of 11 studies) showed a 24% incidence of residual disease when the margins were 3 mm or less and 44% when margins were positive [3]. It appears that safety is not reached until at least a full 1- to 2-cm clear margin is obtained. Furthermore, there are now at least three excellent long-term studies that indicate that ipsilateral breast recurrence is associated with a dismal prognosis for survival [4–6].

Whelan et al. [4] studied 837 women with node-negative disease randomized to lumpectomy plus axillary dissection with and without radiation. Seven hundred ninety-nine evaluable patients had 30% recurrence in the ipsilateral breast without radiation and 8% in the radiated

Accepted for publication April 25, 1996.

Address reprint requests to Dr. Bernard Gardner, UMDNJ-New Jersey Medical School, MSB G-510 185 South Orange Avenue, Newark, NJ 07103-2714.

group. The risk of mortality for those patients was 2.18 ($P < 0.0006$) and 2.28 ($P < 0.001$) for distant metastases.

In a study of 488 patients after breast conservation treatment from the National Surgical Adjuvant Breast Project (NSABP) (B-06) with a mean follow-up of 103 months, there were 42 recurrences in the ipsilateral breast. A significantly decreased survival rate was noted in these patients ($P < 0.001$) [5]. Haffty et al. [6] recently reported on 973 patients followed for a median of 8.6 years after segmental mastectomy. Seventy-three patients developed ipsilateral breast recurrences and of the 32 who developed these within 4 years, 16 (50%) developed distant metastases ($P < 0.01$).

To this day there is still not a single study to demonstrate that established breast cancer is curable by chemotherapy. I therefore plead with surgeons and their pathologists to pay special heed to surgical margins of breast cancer resected as part of a conservation technique. Do not depend on radiation to clear a close margin for the patient. Reresection has revealed residual disease in many

of these specimens. Our first priority must be to rid a patient of a curable breast cancer with appropriate surgical techniques.

REFERENCES

1. Zavotsky J, Gardner B: Post excisional recurrence of carcinoma of the breast. *J Amer Col Surg* 182:71-77, 1996.
2. Gwin JL, Eisenberg BL, Hoffman JP, et al.: Incidence of gross and microscopic specimens from patients with breast cancer after re-excision lumpectomy. *Ann Surg* 218:729-734, 1993.
3. Carter D: Margins of "lumpectomy" for breast cancer. *Hum Pathol* 12:330-332, 1986.
4. Whelan T, Clark R, Roberts R et al.: Ipsilateral breast tumor recurrence post lumpectomy is predictive of subsequent mortality: Results from a randomized trial. *Int J Radiat Oncol Biol Phys* 30:11-16, 1994.
5. Fisher ER, Anderson S, Redmon C, Fisher B: Ipsilateral breast tumor recurrence and survival following lumpectomy and irradiation: pathological findings from NSABP protocol B-06. *Semin Surg Oncol* 8:161-166, 1992.
6. Haffty BG, Reiss M, Beinfeld M, et al.: Ipsilateral breast tumor recurrence as a predictor of distant disease. *J Clin Oncol* 14:52-57, 1996.